



U.S. Fish & Wildlife Service

The Indiana Bat in Western North Carolina

A Status Summary Update

The issue

A small colony of Indiana bats, a federally endangered species, was discovered in July, 1999 on the Cheoah Ranger District of the Nantahala National Forest in Graham County, North Carolina. As a precautionary measure against accidentally harming this or other colonies, the Forest Supervisor temporarily suspended timber cutting on the National Forests in Graham County and three adjacent counties—Cherokee, Macon, and Swain—until further bat surveys and/or habitat management plans are complete.



Merlin D. Tuttle, Bat Conservation International ©

Indiana bat colony

The background

Indiana bats are small flying mammals with brownish to grayish black fur. They weigh about three-tenths of an ounce and have a nine to eleven inch wingspan. Though extremely rare, these bats are found in 27 states in the Eastern United States. They require caves or mines for winter hibernation but primarily use standing dead trees with sloughing bark or live trees with loose bark for summer roosts and maternity colonies. They feed on insects.

Why is the Indiana bat endangered?

This species has declined 60 percent since 1960. Factors contributing to its decline include disturbance and vandalism in wintering caves and loss or changes to habitat. Chemical contamination of its food sources is also suspected.

Why did the U.S. Forest Service suspend timber sales in four counties when the bats were only found in Graham County?

Under the Endangered Species Act, the U.S. Fish and Wildlife Service (Service) provides data to other Federal agencies as to what listed species may be present in the area of their ongoing and proposed projects and how to minimize the effects of these activities on endangered and threatened species. In addition, all Federal agencies are bound by law to not jeopardize the existence of federally listed species and to aid in their recovery. In this case, based on the recent discovery of the bats in Graham County and the fact that similar habitat occurs in Swain, Cherokee, and Macon Counties, the Service recommended that the Forest Service consider the Indiana bats to be present in the adjacent counties and evaluate the potential impacts of their activities on the species. The Forest Service decided to suspend timber harvesting activities on National Forests in all four counties during this evaluation period. The Service supported their decision.

Have timber activities resumed on the National Forest?

Yes. After the initial suspension, the Forest Service, using standard mist-netting guidelines and advanced echolocation detection devices, determined that Indiana bats were not present in the area of some of the timber sales. In addition, the Forest Service evaluated the habitat within and adjacent to the proposed project areas and determined that abundant post-project Indiana bat summer foraging and roosting habitat would be available to the bats if they moved into the area at some time in the future. Based on these surveys and the habitat evaluation, they determined that the timber sales are not likely to adversely affect the Indiana bat. The Service concurred with their determination.

The sale areas that were not surveyed for the presence of Indiana bats before the August 15 surveying deadline required additional analysis of the actual and potential impacts of timber activities on the bat. The Indiana Bat Agency Draft Recovery Plan contains guidelines that require mist netting surveys for summer-resident Indiana bats to be conducted between May 15 and August 15. After August 15 the assumption is that the bats are moving back to their winter hibernation sites; any bats trapped

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then would probably be migrants, not summer residents. Because the Indiana bat was discovered in Graham County on July 25, 1999, the Forest Service had only a short period of time in which to conduct and complete the bat surveys. As a result, they were not able to survey all the suspended timber sales by the August 15 deadline. The additional analysis was completed in October, with Fish and Wildlife concurrence, and the suspension was lifted from the remaining timber sales.

The U.S. Forest Service and the U.S. Fish and Wildlife Service are now in formal consultation on the Forest Plan for the Nantahala and Pisgah National Forest to ensure future activities do not adversely affect the Indiana bat. Consultation will be completed this spring.

How will the discovery of the Indiana bat affect private landowners?

Unlike Federal agencies, private individuals do not have to ensure the continued existence of a listed species or promote its recovery. The only restriction on private landowners is to not "take" a listed species. "Take" means, among other things, to harm, kill, or harass a federally protected species. Habitat Conservation Plans are available under the Endangered Species Act, to allow landowners some degree of "take" of a listed species in exchange for some habitat protection.

How does this species benefit people?

The Indiana bat feeds only on insects, including moths, beetles, flies, bees, wasps, flying ants, and mosquitos. In fact, bats are the only major predators, and the best natural controller, of night flying insects. Research has found that one bat can consume over 1,200 insects in an hour; and nursing mother bats often eat 4,500 insects or more each night! The small colony of approximately 28 bats found in Graham County could be consuming more than 100,000 insects in just one night of foraging. Many of the insects that bats consume are pests to people and agricultural crops. In fact, bats eat insects that cost farmers and forester billions of dollars annually in damages to crops and forests.

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To learn more

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November 1999